Statistics 512

Homework #0

Not to be handed in, but try to complete by Friday, January 17, 2014.

- 1. Find a computer that has SAS installed on it. You can use any ITaP computer lab with your "career account". To install SAS on your home or lab computer, visit the Young Hall 5th Floor reception area (ITaP office hours: 9am to noon and 1-4pm, Monday through Friday) and show your student ID to get the CDs. It does take a lot of disk space to install.
- 2. Read the first two chapters of *Applied Statistics and the SAS Programming Language* by Cody and Smith. Make sure you can do the problems at the end of each chapter.
- 3. Go to the class website <u>http://www.stat.purdue.edu/~minzhang/teaching.html</u> and locate the file "diamonds.sas" under the SAS Files link. Save this file to your computer.
- 4. Start up the SAS program, by double-clicking on the diamonds.sas file (you can also start SAS from the All Programs menu and use File–Open). Get familiar with the layout of the windows, menus, and editing capabilities. Try the tutorial under Help -- Getting Started with SAS Software. Depending on your comfort level with computers, it may be useful to go through the entire tutorial. Make sure you can find the Program (Editor), Output, and Log windows.
- 5. Try running the diamonds.sas program. With the editor window (containing diamonds.sas) active, select Run Submit or click on the "running person" icon near the top right (next to the delete icon).
- 6. Examine the output that was created in the Output window. Try to figure out which output comes from which input commands. See how they match up with what was shown in class.
- 7. Save the output in "rtf" format which gives you a file you can manipulate in Word; to get this file, in the save box change "Save as Type" to "RTF Files". You can also copy and paste directly from SAS into WORD, and then edit the output.¹ (Try it!) To copy a graph into WORD, use the copy command in SAS after selecting the graph. Then use Edit Paste Special... in WORD and choose "as metafile". You can then manipulate the picture in WORD. (Try it!) Remember that all SAS output for this class should be cut down to include only those parts that are needed and pasted into the appropriate spot in your assignments.
- 8. Look in the Log window and try to understand the messages it gives.
- 9. Try modifying the program and running it again to see what happens. Notice that the new output is appended to the Output and Log windows, which can be confusing if you run the same program several times. To empty these windows and start over, select Edit Clear All while the window is active. To run only specific parts of the program, select the commands you want to run, and click Submit. IMPORTANT: The last word in your selection must be the command "run;" or else nothing will happen. Every program file should end with the commands "run; quit;"

¹ If your copy-and-paste doesn't work, check for the message "ERROR: You can not mark in a non-markable area." in the lower left hand corner after selecting the text. For some reason, SAS does not like you to select text all the way to the end of a page. If this happens, simply adjust your selection to stop right after the last piece of text you need, not at the end of the page.

10. Use the help system to get more information about the SAS commands used and their options (such as proc reg and proc gplot). I find the Index is usually more helpful than the Search for looking things up.